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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Examiner points out that the new limitation to the claim is a form of a negative limitation and therefore Applicant's attention is drawn to MPEP 2173.05i and *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984). Examiner notes that applicant points to page 2, lines 16-22 and page 8, lines 14-17 for support, however, while these portions of the specification state that there is no after-treatment necessary and provide example using the claimed metal salt, this does not provide support to recite that it is only the metal salt that provides antimicrobial properties.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1794

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 7-9, 11-14 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Yazaki et al. (US 5,094,847).

3. In regards to claims 1 and 2 Yazaki et al. teach food packaging films with an antibacterial molded article of a polyolefin resin (column 1 lines 10-14). Yazaki et al. teach that the antimicrobial agent can be silver salts of carboxylic acid (column 3 line 9). Examiner points out that Yazaki et al. teach in their specification that the corona discharge could be used to increase antimicrobial activity (column 2 lines 44-50), and is not required. This means that the corona discharge is not imparting any new antimicrobial properties, but is instead increasing the properties already presented by the antimicrobial agent already present. Examiner points out that by using the phrase "could be increased" Yazaki et al. is demonstrating that the products already have antimicrobial activity. It is pointed out that a surface treated by only a corona discharge would not have any antimicrobial properties and therefore it is the presence of the silver salt of the carboxylic acid alone that causes the antimicrobial properties. In regards to the comparative examples in Yazaki et al. Examiner points out that only the silver zeolite composition is shown to not have antimicrobial activity prior to being treated by the corona discharge. There is no mention in Yazaki et al. of the silver salt of a carboxylic acid not having antimicrobial activity prior to the corona discharge treatment. In fact it is Examiners assertion that since the article of Yazaki and the presently claimed invention are made of the same materials, and at the same concentrations then they would inherently have the same properties, including the bacteriostatic activity.

Art Unit: 1794

4. In regards to claims 7 and 8 Yazaki et al. teach that the antibacterial agent is present in concentrations of 0.05-2.0% by weight (column 4 line 25).
5. In regards to claims 9 and 14 Yazaki et al. teach that the food package can be a two layer film which then necessitates that the metal salt containing layer is an outer layer (column 6 line 31-33).
6. In regards to claims 11 and 12 Yazaki et al. teach an embodiment wherein the films are not stretched (column 5 lines 37-56) and an embodiment wherein the films undergo biaxial stretching column 8 lines 16-32).
7. In regards to claim 13 the second layer is a polyolefin (column 6 lines 28-30).
8. In regards to claim 18 Yazaki et al. teach that the film has a thickness of 15 to 20  $\mu\text{m}$  (column 5 line 47 and column 6 lines 33-34).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 15, 16, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yazaki et al. (US 5,094,847).
11. As stated above Yazaki et al. teach a film used for packaging food products but is silent regarding the film being symmetrical or asymmetrical.

12. The embodiments in claims 15 and 16 that the films would be symmetrical or asymmetrical are design choices that affect the layout of the film but not the properties, and are there for obvious to one of ordinary skill in the art at the time of the invention.

13. In regards to claim 23, while Yazaki et al. teach that the corona treatment is used to increase antimicrobial activity Examiner points out that Yazaki et al. teach in their specification that the corona discharge could be used to increase antimicrobial activity, and is not required. Examiner points out that by using the phrase "could be increased" Yazaki et al. is demonstrating that the products already have antimicrobial activity. In regards to the comparative examples in Yazaki et al. Examiner points out that only the silver zeolite composition is shown to not have antimicrobial activity prior to being treated by the corona discharge. There is no mention in Yazaki et al. of the silver salt of a carboxylic acid not having antimicrobial activity prior to the corona discharge treatment. In fact it is Examiners assertion that since the article of Yazaki and the presently claimed invention are made of the same materials, and at the same concentrations then they would inherently have the same properties, including the bacteriostatic activity.

14. In regards to claim 24 Yazaki et al. teach an antimicrobial agent concentration of 0.05-2.0 weight % (column 4 lines 25).

15. Claims 3-6, 10, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yazaki et al. (US 5,094,847) in view of Schroder et al. (US 6,517,920).

Art Unit: 1794

16. While Yazaki et al. teach a multilayer film for packaging a food product, they are silent regarding copolyamide layers and tubular formations.

17. Schroder et al. teach biaxially stretched casing for wrapping food products (column 1 lines 15-18).

18. In regards to claims 3 and 4 Schroder et al. teach that at least one layer of their invention comprises the aliphatic polyamide 6/66 (column 5 lines 1-2).

19. In regards to claim 5 Schroder et al. teach that an aromatic copolyamide can also be used in that layer, specifically mentioning polyamide 6I/6T (column 5 lines 37-42).

20. In regards to claim 6 Schroder et al. that polyamide 6I/6T is added in amounts of 2-40% (column 5 line 42).

21. In regards to claim 10 Schroder et al. teach that the casing can be tubular in shape (column 6 line 39-53).

22. In regards to claim 19 Schroder et al. teach that the tube has a diameter in the range of 10-400 mm (column 7 line 30).

23. One of ordinary skill in the art at the time of the invention would be motivated to modify the casing of Yazaki et al. with the casing of Schroder et al. because the film of Yazaki et al. which have good appearance transparency and surface properties (column 2 lines 40-43) would benefit from the good barrier properties and adhesion to the contents as offered by Schroder et al. (Column 1 lines 33-35). One would also be motivated to make the packaging of Yazaki et al tubular so that it could completely cover various foods that are tubular in shape and for which it can be used to package.

Art Unit: 1794

24. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yazaki et al. (US 5,094,847) in view of Schroder et al. (US 6,517,920) in further view of Towne et al. (US 4,635,316).

25. As stated above Yazaki et al. and Schroder et al. teach tubular casings used for packaging food products but are silent regarding presoaked ready to fill embodiments.

26. Towne et al. teach films used to package food products (column 1 lines 8-10).

27. Towne et al. teach that the casings can be premoisturized and be "ready to stuff" (column 3 lines 40-47).

28. One of ordinary skill in the art at the time of the invention would be motivated to modify the casings of Yazaki et al. and Schroder et al. with that of Towne et al. because the casings of Yazaki et al. and Schroder et al. which have good transperence and barrier properties as discussed above would benefit from the machinable properties of Towne et al., specifically eliminating the step of soaking the casing films before the food product is added, which would save time and money (column 3 lines 40-47).

29. Claims 20-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Yazaki et al. (US 5,094,847) in view of Iwao et al. (JP 09-057923).

30. In regards to claims 20-21 Yazaki et al teach a method of forming the film which involves adding the metal antimicrobial salt or zeolite to the polyethylene mixture, and then extruding the mixture (column 5 lines 36-56). However Yazaki et al. are silent regarding concentrations between 5-40%.

31. Iwao et al. teach antimicrobial thermoplastic extruded film (paragraph 0001).



32. Iwao et al. teach that the antimicrobial agent can be silver inorganic compounds, and while they do not specifically mention silver salts they do mention silver zeolites (paragraph 0010) which are interchangeable with silver salts in the invention of Yazaki et al. Iwao et al. teach that the inorganic silver compounds be mixed in with the thermoplastic polymer in concentrations between 2-10% by weight (paragraph 0009 the examples).

33. One of ordinary skill in the art at the time of the invention would be motivated to modify the films of Yazaki et al. with those of Iwao et al because the film of Yazaki et al. which have good appearance transparency and surface properties (column 2 lines 40-43) would benefit from the teaching of Iwao et al. which teaches that a specific amount of salt such that the salt imparts antibacterial effect without weakening the film (paragraph 0009).

### ***Response to Arguments***

34. Applicant's arguments, see arguments, filed 06/20/08, with respect to the objection of the abstract and the 35 U.S.C. 112 2<sup>nd</sup> paragraph rejection have been fully considered and are persuasive. The objection of the abstract and the rejection of claim 4 under 35 U.S.C. 112 2<sup>nd</sup> paragraph have been withdrawn.

35. In regards to applicants amendment that the antimicrobial salts are imparted to the food casing by the metal salts alone, Examiner points to the examples to show that no other antimicrobial agent is added to the composition. Examiner also points out that Yazaki et al. teach in their specification that the corona discharge could be used to

Art Unit: 1794

increase antimicrobial activity (column 2 lines 44-50), and is not required. This means that the corona discharge is not imparting any new antimicrobial properties, but is instead increasing the properties already presented by the antimicrobial agent already present. Examiner points out that by using the phrase "could be increased" Yazaki et al. is demonstrating that the products already have antimicrobial activity. It is pointed out that a surface treated by only a corona discharge would not have any antimicrobial properties and therefore it is the presence of the silver salt of the carboxylic acid alone that causes the antimicrobial properties. In regards to the comparative examples in Yazaki et al. Examiner points out that only the silver zeolite composition is shown to not have antimicrobial activity prior to being treated by the corona discharge. There is no mention in Yazaki et al. of the silver salt of a carboxylic acid not having antimicrobial activity prior to the corona discharge treatment. In fact it is Examiners assertion that since the article of Yazaki and the presently claimed invention are made of the same materials, and at the same concentrations then they would inherently have the same properties, including the bacteriostatic activity. In regards to the assertion that the metal ions need the corona discharge treatment to become activated Examiner points out that all comparative examples of Yazaki et al. utilize the metal zeolite, and not silver salts of carboxylic acid, and therefore Yazaki et al. does not show that the silver salts of the carboxylic acid do not have antimicrobial properties without the corona treatment. As the invention of Yazaki et al. contain the same materials as and at concentration ranges with overlap with applicant's, it would inherently have antimicrobial properties without the corona discharge treatment. Examiner also points out that "[T]he PTO can require

Art Unit: 1794

an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency' under 35 U.S.C. 102, on prima facie obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same" The burden of proof is similar to that required with respect to product-by-process claims. In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)).

36. In regards to Applicant's arguments regarding the secondary references, Examiner points out that Yazaki et al. are being used to teach a food casing and not the method of treating the casing with a corona discharge. As such the food casing of Yazaki et al, and those of Schroder et al., Towne et al. and Iwao et al. are analogous art, and the motivation to combine the references has been previously presented in the rejection above. Examiner also points out that while Schroder et al. Towne et al., and Iwao et al. do not disclose all the features of the present claimed invention, they are used as teaching references, and therefore, it is not necessary for these secondary references to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather these references each teach a certain concept, and in combination with the primary reference, disclose the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

37. In regards to Applicant's arguments that Yazaki et al. do not teach Applicant's amended ranges, Examiner points to column 4 line 25.

### ***Conclusion***

38. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is (571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Application/Control Number: 10/549,830  
Art Unit: 1794

Page 13